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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,172	11/18/2003	Diana Maria Cantu	1033-T00535	3909
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HANLEY, FLIGHT & ZIMMERMAN, LLC 20 N. WACKER DRIVE SUITE 4220 CHICAGO, IL 60606			LE, MIRANDA	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/716,172	Applicant(s) CANTU ET AL.	
	Examiner Miranda Le	Art Unit 2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>05/22/06, 09/20/04</u> . | 6) <input checked="" type="checkbox"/> Other: <u>IDS filed 11/18/03</u> . |

DETAILED ACTION

Claim Objections

1. Claims 5, 18 are objected to because of the following informalities: The claims should end with a period (.) . Appropriate correction is required.

Information Disclosure Statement

2. Applicants' Information Disclosure Statements, filed 05/22/06, 09/20/04, 11/18/03, have been received, entered into the record, and considered. See attached form PTO-1449.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless:

(e) the invention was described in

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 6, 8, 9, 11-13, 14-17, 19, 21, 24, 25, 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Cornelius et al. (US Patent No. 6,684,222).

Cornelius anticipated independent claims 1, 14 by the following:

As per claim 1, Cornelius teaches a method for organizing related communications in one or more databases comprising:

receiving (*i.e. The received data may be expressed in a hierarchical data structure format, such as extensible mark-up language, XML, col. 3, lines 42-44*) at least one XML-based message (*i.e. data message, col. 13, line 28*) from at least one of many, different communication devices (*i.e. The first data processing system 102 and the second data processing system 120, col. 2, lines 58-59*) (*col. 2, line 48 to col. 3 line 6; col. 3, lines 39-49; col. 13, lines 38-48*);

comparing (*i.e. Parsed data includes symbols (e.g., characters) and markup code that provides a definition of the storage layout and logical structure of the XML document, col. 3, lines 49-56*) one or more XML tags (*i.e. markup code, col. 3, lines 49-56*) within the at least one XML-based message to one or more references, wherein each reference is associated with one or more previous messages (*i.e. the first data processing system 102 may initiate a resend of the transactional data, col. 4, line 65 to col. 5, line 1*) (*col. 3, lines 39 to col. 4, line 9; col. 5, lines 6-34*);

selecting a reference (*i.e. the hierarchical data structure, col. 3, lines 57-59*) that most closely matches one or more of the XML tags (*col. 3, lines 39 to col. 4, line 9*);

converting the received message into a converted message having a format associated with at least one database associated with the matching reference (*i.e. The mapper 106 converts the hierarchical data structure into a table or another generally tabular data structure for storage in the first relational database 108, col. 3, lines 57-59*) (*col. 3, line 57 to col. 4, line 9*);
and

forwarding the converted message to the associated database (*i.e. The first relational database 108 supports storage and retrieval of information in the table or another generally tabular data structure, col. 3, lines 59-62) (col. 3, line 57 to col. 4, line 9).*

As per claim 14, Cornelius teaches a system for organizing related communications in one or more databases, the system comprising:

a mediation web server (*i.e. communication network 118, Fig. 1A, col. 2, lines 48-67*) operable to:

receive (*i.e. The received data may be expressed in a hierarchical data structure format, such as extensible mark-up language, XML, col. 3, lines 42-44*) at least one XML-based message (*i.e. data message, col. 13, line 28*) from at least one of many, different communication devices (*i.e. The first data processing system 102 and the second data processing system 120, col. 2, lines 58-59) (col. 2, line 48 to col. 3 line 6; col. 3, lines 39-49; col. 13, lines 38-48);*

compare (*i.e. Parsed data includes symbols (e.g., characters) and markup code that provides a definition of the storage layout and logical structure of the XML document, col. 3, lines 49-56*) one or more XML tags (*i.e. markup code, col. 3, lines 49-56*) within the message to one or more references, wherein each reference is associated with one or more previous messages (*i.e. the first data processing system 102 may initiate a resend of the transactional data, col. 4, line 65 to col. 5, line 1) (col. 3, lines 39 to col. 4, line 9; col. 5, lines 6-34);*

selecting a reference (*i.e. the hierarchical data structure, col. 3, lines 57-59*) that most closely matches one or more of the XML tags (*col. 3, lines 39 to col. 4, line 9);*

convert the received message into a format associated with at least one database associated with the matching reference (*i.e. The mapper 106 converts the hierarchical data structure into a table or another generally tabular data structure for storage in the first relational database 108, col. 3, lines 57-59) (col. 3, line 57 to col. 4, line 9); and*

forwarding the converted message to the associated database (*i.e. The first relational database 108 supports storage and retrieval of information in the table or another generally tabular data structure, col. 3, lines 59-62) (col. 3, line 57 to col. 4, line 9).*

As to claims 2, 15, Cornelius teaches the method as in claim 1, wherein the received message and a previous message corresponding to the selected reference are substantially related to one another (*i.e. confirmation of receipt of data previously transmitted, col. 4, line 46 to col. 5, line 5).*

As to claims 3, 16, Cornelius teaches the method as in claim 1, further comprising enabling a telecommunications service that organizes related communications in one or more databases (*i.e. first relational database 108, second relational database 126, Fig. 1A).*

As to claims 4, 17, Cornelius teaches the method as in claim 1, further comprising:
converting a next message into a same format as the converted message when the next message has one or more XML tags that match the XML tags of a previous message (*i.e. converts the hierarchical data structure, col. 4, line 57) (col. 3, line 39 to col. 4, line 9); and*

forwarding the next, converted message to a database associated with the converted message (*i.e. the mapper 106 communicates with a first relational database 108 to facilitate the storage of data in the first relational database 108 col. 3, lines 12-27*) (*col. 3, line 39 to col. 4, line 9*).

As to claims 6, 19, Cornelius teaches the method as in claim 1, further comprising:
selecting an initial database (*i.e. a first relational database 108, col. 4, line 48*) when no reference most closely matches one or more of the XML tags of the received message (*col. 4, line 46 to col. 5, line 5*);

converting the received message into a format corresponding to the selected, initial database (*i.e. The mapper 106 converts the hierarchical data structure into a table or another generally tabular data structure for storage in the first relational database 108, col. 3, lines 57-59*) (*col. 3, line 39 to col. 4, line 9*); and

forwarding the converted message to the selected, initial database (*i.e. The first data processing system 102 may archive data from the first enterprise resource planning system 100 into a first relational database 108 for subsequent reference, col. 4, line 46 to col. 5, line 5*).

As per claim 8, Cornelius teaches the method as in claim 1, wherein the different communication devices are selected from the group consisting of a voicemail server, a facsimile server, an email server, and a web server (*i.e. the communications network 118, col. 13, lines 38-48*).

As to claims 9, 21, Cornelius teaches the method as in claim 1, wherein the database format is selected from the group consisting of Oracle, Sybase, MySQL, MsQL, and DB2 (*i.e. Structured Query Language, col. 5, lines 41-55*).

As to claims 11, 24, Cornelius teaches the method as in claim 1, further comprising: forwarding a confirmation (*i.e. confirmation of receipt of data, col. 4, lines 65-67*) message to at least one of the group consisting of a customer agent and a customer (*i.e. a business relationship (e.g., customer-supplier relationship) between the first business entity and the second business entity, col. 3 lines 4-6*).

As to claims 12, 25, Cornelius teaches the method as in claim 1, further comprising: forwarding certain types of related messages to a customer agent, wherein the message types are selected from the group consisting of voicemail, facsimile, email and Internet messages (*i.e. A data message is transmitted between a first data processing system 102 and a second data processing system 120 over the communications network 118, col. 13, lines 38-48*).

As to claims 13, 26, Cornelius teaches the method as in claim 1 further comprising: receiving at least one XML-based message from a customer agent (*i.e. a business relationship (e.g., customer-supplier relationship) between the first business entity and the second business entity, col. 3 lines 4-6*) (*col. 2, line 48 to col. 3 line 6; col. 3, lines 39-49; col. 13, lines 38-48*);

comparing (*i.e. Parsed data includes symbols (e.g., characters) and markup code that provides a definition of the storage layout and logical structure of the XML document, col. 3, lines 49-56*) one or more XML tags (*i.e. markup code, col. 3, lines 49-56*) within the at least one XML-based message to one or more references, wherein each of the one or more references is associated with one or more previous messages (*i.e. the first data processing system 102 may initiate a resend of the transactional data, col. 4, line 65 to col. 5, line 1*) (*col. 3, lines 39 to col. 4, line 9*);

selecting a reference (*i.e. the hierarchical data structure, col. 3, lines 57-59*) that most closely matches one or more of the XML tags (*col. 3, lines 39 to col. 4, line 9; col. 5, lines 6-34*);

converting the received message into a converted message having a format associated with the matching reference (*i.e. The mapper 106 converts the hierarchical data structure into a table or another generally tabular data structure for storage in the first relational database 108, col. 3, lines 57-59*) (*col. 3, line 57 to col. 4, line 9*); and

forwarding the converted message to the associated database (*i.e. The first relational database 108 supports storage and retrieval of information in the table or another generally tabular data structure, col. 3, lines 59-62*) (*col. 3, line 57 to col. 4, line 9*).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 5, 7, 10, 18, 20, 22, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cornelius et al. (US Patent No. 6,684,222), in view of Sijacic et al. (US Pub. No. 20020184145).

As to claims 5, 18, Cornelius teaches the at least one received XML-based message (*i.e.* *The received data may be expressed in a hierarchical data structure format, such as extensible mark-up language, XML, col. 3, lines 42-44; data message, col. 13, line 28*).

Cornelius does not expressly teach a Document Type Definition ("DTD") which substantially takes the form of:

```
<!DOCTYPE GDS [  
    <!ELEMENT Correspondence (Envelope+,CallHistory+)>  
<!ELEMENT Envelope (Sender, Receiver, Subject, ReceiptDate, Content, ContentType)>  
    <!ELEMENT CallHistory (ContactDate,AgentComments)>  
    <!ELEMENT Sender (#PCDATA)>  
    <!ELEMENT Receiver(#PCDATA)>  
    <!ELEMENT Subject(#PCDATA)>  
    <!ELEMENT ReceiptDate (#PCDATA)>  
    <!ELEMENT Content (#PCDATA)>  
    <!ATTLIST ContentType CType CDATA #REQUIRED>
```

]>

However, Sijacic teaches the at least one received XML-based message comprises a Document Type Definition ("DTD") which substantially takes the form of above in Fig. 4A, 4B, and 4C (FIGS. 4A, 4B and 4C illustrate exemplary XML formats associated with requests, DTDs and response messages, [0017]).

It would have been obvious to one of ordinary skill of the art having the teaching of Cornelius and Sijacic at the time the invention was made to modify the system of Cornelius to include the at least one received XML-based message comprises a Document Type Definition ("DTD") which substantially takes the form of above as taught by Sijacic. One of ordinary skill in the art would be motivated to make this combination in order to perform XML based transactions in a business-to-business electronic invoice presentment and payment environment in view of Sijacic, as doing so would give the added benefit of enabling efficient and versatile data exchange between a billing system and its customers as taught by Sijacic ([0019]).

As to claims 7, 20, Cornelius teaches forwarding an XML-based message (*i.e. The sender 112 sends a hierarchical data structure (e.g., XML document) from the first data processing system 102 to the second data processing system 120 via the communications network 118, col. 3, line 57 to col. 4, line 9; data message, col. 13, line 28*) to at least one of the many, different communication devices (*i.e. (i.e. The first data processing system 102 and the second data processing system 120, Fig. 1A, col. 2, lines 58-59).*

Cornelius does not expressly teach a DTD which substantially takes the form of:

<!DOCTYPE GDS [

```
<!--ELEMENT Correspondence (Envelope+,CallHistory+)>
<!--ELEMENT Envelope (Sender, Receiver, Subject, ReceiptDate, Content, ContentType)>
  <!--ELEMENT CallHistory (ContactDate,AgentComments)>
  <!--ELEMENT Sender (#PCDATA)>
  <!--ELEMENT Receiver(#PCDATA)>
  <!--ELEMENT Subject(#PCDATA)>
  <!--ELEMENT ReceiptDate (#PCDATA)>
  <!--ELEMENT Content (#PCDATA)>
  <!--ATTLIST ContentType CType CDATA #REQUIRED>
]>
```

to at least one of the many, different communication devices

However, Sijacic teaches forwarding an XML-based message comprising a DTD which substantially takes the form of above in Fig. 4A, 4B, and 4C (FIGS. 4A, 4B and 4C illustrate exemplary XML formats associated with requests, DTDs and response messages, [0017]).

It would have been obvious to one of ordinary skill of the art having the teaching of Cornelius and Sijacic at the time the invention was made to modify the system of Cornelius to include forwarding an XML-based message comprising a DTD which substantially takes the form of above as taught by Sijacic. One of ordinary skill in the art would be motivated to make this combination in order to perform XML based transactions in a business-to-business electronic invoice presentment and payment environment in view of Sijacic, as doing so would give the added benefit of enabling efficient and versatile data exchange between a billing system and its customers as taught by Sijacic ([0019]).

As to claims 10, 22, Cornelius teaches forwarding a responsive (*i.e. confirmation of receipt of data previously transmitted by the first data processing system 102 to the second data processing system 120, col. 4, lines 65-67*) XML-based message (*i.e. The sender 112 sends a hierarchical data structure (e.g., XML document) from the first data processing system 102 to the second data processing system 120 via the communications network 118, col. 3, line 57 to col. 4, line 9; data message, col. 13, line 28*) to at least one of the many, different communication devices (*i.e. The first data processing system 102 and the second data processing system 120, Fig. 1A, col. 2, lines 58-59*) to a mediation web server (*i.e. communication network 118, Fig. 1A, col. 2, lines 48-67*).

Cornelius does not expressly teach a DTD which substantially takes the form of:

```
<!DOCTYPE GDS [  
  <!ELEMENT Correspondence (Envelope+,CallHistory+)>  
<!ELEMENT Envelope (Sender, Receiver, Subject, ReceiptDate, Content, ContentType)>  
  <!ELEMENT CallHistory (ContactDate,AgentComments)>  
  <!ELEMENT Sender (#PCDATA)>  
  <!ELEMENT Receiver(#PCDATA)>  
  <!ELEMENT Subject(#PCDATA)>  
  <!ELEMENT ReceiptDate (#PCDATA)>  
  <!ELEMENT Content (#PCDATA)>  
  <!ATTLIST ContentType CType CDATA #REQUIRED>  

```

to a mediation web server.

However, Sijacic teaches forwarding a response XML-based message comprising a DTD which substantially takes the form of above in Fig. 4A, 4B, and 4C (FIGS. 4A, 4B and 4C illustrate exemplary XML formats associated with requests, DTDs and response messages, [0017]).

It would have been obvious to one of ordinary skill of the art having the teaching of Cornelius and Sijacic at the time the invention was made to modify the system of Cornelius to include forwarding a response XML-based message comprising a DTD which substantially takes the form of above as taught by Sijacic. One of ordinary skill in the art would be motivated to make this combination in order to perform XML based transactions in a business-to-business electronic invoice presentment and payment environment in view of Sijacic, as doing so would give the added benefit of enabling efficient and versatile data exchange between a billing system and its customers as taught by Sijacic ([0019]).

As per claim 23, Cornelius teaches the system as in claim 22, wherein the communication control device is selected from the group consisting of a voicemail server, a facsimile server, an email server, and a web server (*i.e. A data message is transmitted between a first data processing system 102 and a second data processing system 120 over the communications network 118, col. 13, lines 38-48*).

Conclusion


7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham, can be reached on (571) 272-7079. The fax number to this Art Unit is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Miranda Le
June 19, 2006



CHETA ROBINSON
PRIMARY EXAMINER